



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,968	08/13/2007	Robert Gilmour	12ZH-127123	4931
30764 7590 11/12/2009 SHEPPARD, MULLIN, RICHTER & HAMPTON LLP 333 SOUTH HOPE STREET 48TH FLOOR LOS ANGELES, CA 90071-1448				
EXAMINER				
HICKS, VICTORIA J				
ART UNIT		PAPER NUMBER		
3772				
MAIL DATE		DELIVERY MODE		
11/12/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/591,968

**Applicant(s)**

GILMOUR, ROBERT

**Examiner**

VICTORIA HICKS

**Art Unit**

3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5506)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

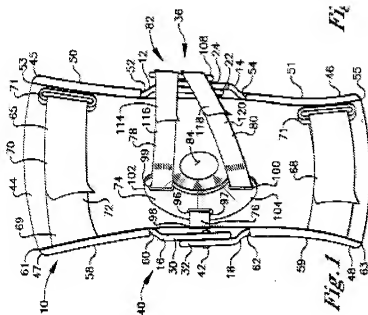
### **DETAILED ACTION**

**This action is in response to the amendment filed on June 26, 2009.**

#### ***Response to Arguments***

Applicant's arguments filed 6/26/09 have been fully considered but they are not persuasive. Applicant's amendment to the abstract is sufficient to overcome the Examiner's previous objection to the specification. Applicant's amendments to claims 12 and 22 are sufficient to overcome the Examiner's previous objection of claims 12 and 22.

In response to Applicant's argument that Cawley in view of Lindberg does not teach or suggest a cuff that can apply force to the patella in a plurality of different directions, the Examiner respectfully disagrees. Cawley teaches in Figure 1, for example, a cuff (74) that can apply force to the patella in the medial and lateral directions, and additional intermediate directions. For clarification, see annotated copy of Figure 1 of Cawley provided below depicting a sample of the multiple directions in which the cuff (74) taught by Cawley is able to apply forces to the patella.



Further, Applicant states the following in the remarks submitted 6/26/09 regarding the teachings of Crawley and Lindberg: "Not only are **the forces applied in a plurality of directions**, each of those forces can then be adjusted independently in a plurality of directions." This teaching meets the claimed disclosure and further clarifies that Crawley does not teach only a unidirectional force applied to the patella. Crawley therefore, does not teach away from the claimed disclosure, but rather anticipates it.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have

been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9. Applicant argues in the remarks submitted 6/26/09 that the connection members used in Crawley do not press against the crook of the knee because they are attached to hinges on the side of the knee. The Examiner respectfully disagrees. It is clear from Figure 1 of Crawley, for example, the connection members (78, 80) taught by Crawley do in fact press against the crook of the knee, despite the fact the they are attached to hinges on the side of the knee.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5-10, 13, 14, 18, 19, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cawley et al. (US patent 6,551,264) in view of Lindberg (US patent 4,941,462).

In regards to claim 1, Cawley et al. teaches in Figure 6 a support member (10) configured to be worn about the knee (126) of a user, the support member (10) having

an upper portion extending above the knee (126) and a lower portion extending below the knee (126) and a pressure cuff (74) attachable to the support member (10) in a position adjacent at least a portion of a periphery of the user's patella (126). In Figure 6 Cawley et al. also teaches that the support member (10) has a plurality of connection points (110, 112) located on at least one of opposite sides of the knee (126) and a plurality of connection members (78, 80) attachable between the pressure cuff (74) and selective ones of the plurality of connection points (110, 112) on the support member (10). In column 9, lines 4-8 and 25-30 Cawley et al. teaches that the pressure cuff (74) is adjustable via connection of the plurality of connection members (78, 80) to selective ones of the plurality of connection points (110, 112) to apply force to the patella (126) in a plurality of directions. Cawley et al. does not teach that the connection points are above the knee and below the knee. However, Lindberg teaches in Figures 2 and 3 an analogous device in which the plurality of connection members (20, 21) of the pressure cuff (7) are attachable to connection points (11, 10) located above the knee and below the knee. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

In regards to claim 2, Cawley et al. and Lindberg substantially teach the apparatus of claim 1 (see rejection of claim 1 above). In Figure 1 Cawley et al. teaches that the plurality of directions that the pressure cuff (74) applies force on the patella is a

medial-lateral direction, an interior-superior direction and an intermediate direction (the force being applied by connection members 76, 78 and 80).

In regards to claim 3, Cawley et al. and Lindberg substantially teach the apparatus of claim 1 (see rejection of claim 1 above). In column 9, lines 4-8 and 25-30 Cawley et al. teaches that at least one of the plurality of connection members (78, 80) has an adjustable length.

In regards to claim 5, Cawley et al. and Lindberg substantially teach the apparatus of claim 1 (see rejection of claim 1 above). In Figure 1 Cawley et al. teaches that the support member (10) includes a first upper rigid arm (16) connected by a first hinge (40) to a first lower rigid arm (18), the first hinge (40) located proximate the knee on a first side thereof, the first upper rigid arm (16) extending above the knee and the first lower rigid arm (18) extending below the knee. In column 4, lines 31-36 Cawley et al. teaches that the first upper rigid arm (16) and first lower rigid arm (18) can be made from graphite, which is a rigid material.

In regards to claim 6, Cawley et al. and Lindberg substantially teach the apparatus of claims 1 and 5 (see rejection of claims 1 and 5 above). In Figure 1 Cawley et al. teaches that the support member (10) includes a second upper rigid arm (12) connected by a second hinge (36) to a second lower rigid arm (14), the second hinge (36) located proximate the knee on a second side thereof, the second upper rigid arm (12) extending above the knee and the second lower rigid arm (14) extending below the knee. In column 4, lines 31-36 Cawley et al. teaches that the second upper rigid arm

(12) and second lower rigid arm (14) can be made from graphite, which is a rigid material.

In regards to claim 7, Cawley et al. and Lindberg substantially teach the apparatus of claims 1, 5 and 6 (see rejection of claims 1, 5 and 6 above). In Figures 1 and 6 Cawley et al. teaches that the support member (10) includes a sleeve (44) in combination with the first and second upper and lower rigid arms (12, 14, 16, 18), the sleeve (44) adapted to locate about the knee (126) of the user. Cawley et al. further teaches in column 2, lines 43-42 that the support member (10) includes a sleeve (44).

In regards to claim 8, Cawley et al. and Lindberg substantially teach the apparatus of claims 1 and 5-7 (see rejection of claims 1 and 5-7 above). In Figures 11 and 12 Cawley et al. teaches that at least one of the first and second upper and lower rigid arms (12, 14, 16, 18) have a plurality of connection points (146) provided at spaced apart locations thereon, at least one of the first and second hinges (36, 40) having an attachment portion (42, 108) and that the plurality of connection member (76, 78, 80) are attachable to the attachment portion (42, 108). In column 9, lines 4-8 and 25-30 Cawley et al. teaches that the position at which the pressure cuff (74) is held against the patella such that the direction in which the pressure cuff (74) applies force to the patella is adjustable by adjusting the length of the connection members (78, 80). Cawley et al. does not teach attachment of the plurality of connection members to the plurality of connection points located on the first and second upper and lower rigid arms (12, 14, 16, 18). However, Lindberg teaches in Figures 1 and 2 an analogous device in which the plurality of connection members (20, 21, 5a, 4b) are attachable to a plurality of



connection points on first and second upper and lower rigid arms (10, 11, 12, 13). It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

In regards to claim 9, Cawley et al. and Lindberg substantially teach the apparatus of claims 1 and 5-8 (see rejection of claims 1 and 5-8 above). In Figure 11 Cawley et al. teaches a first one of the plurality of connection members (76) attachable to the attachment portion (42) of the first hinge (40). Cawley et al. does not teach connection members attachable to the plurality of connection points on the second upper rigid arm and second lower rigid arm. However, Lindberg teaches in Figure 2 an analogous device in which a second one of the plurality of connection members (21) is attachable to respective ones of the plurality of connection points on the second upper rigid arm (11) and the third one of the plurality of connection members (20) attachable to respective ones of the plurality of connection points on the second lower rigid arm (10) and wherein attachment of the second and third ones of the plurality of connection members (20, 21) to selective ones of the plurality of connection points on the second upper and lower rigid arms (10, 11) varies the position at which the pressure cuff (7) is held against the patella such that the direction in which the pressure cuff (7) exerts force on the patella is adjustable. This is further taught by Lindberg in column 2, lines 64-67 and column 3, lines 1-4. It would have been obvious for one having ordinary skill in the

art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

In regards to claim 10, Cawley et al. and Lindberg substantially teach the apparatus of claims 1 and 5-8 (see rejection of claims 1 and 5-8 above). Cawley et al. does not teach connection members attachable to connections points on first and second upper and lower rigid arms. However, Lindberg teaches in Figure 2 an analogous device with a first pair of the plurality of connection members (20, 21) attachable to respective ones of the plurality of connection points on the first upper and lower rigid arms (11, 10), the of the first pair (20, 21) attachable to the first upper rigid arm (11) and the other of the first pair (20, 21) attachable to the first lower rigid arm (10). Lindberg further teaches in Figure 1 a second pair of the plurality of connection members (5a, 4b) attachable to respective ones of the plurality of connection points on the second upper and lower rigid arms (13, 12), one of the second pair (5a, 4b) attachable to the second upper rigid arm (13) and the other of the second pair (5a, 4b) attachable to the second lower rigid arm (12), wherein attachment of each of the first and second pairs of the plurality of connection members to selective ones of the plurality of connection points varies the position at which the pressure cuff (7) is held against the patella such that the direction in which the pressure cuff (7) exerts force on the patella is adjustable. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al.

with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

In regards to claim 13, Cawley et al. and Lindberg substantially teach the apparatus of claim 1 (see rejection of claim 1 above). Cawley et al. does not teach a plurality of connection members attachable to the plurality of connection points via a hook and loop fastener system. However, Lindberg teaches in column 2, lines 43-48 and 64-67 and column 3, lines 1-4 an analogous device with a plurality of connection members (20, 21) attachable to the plurality of connection points on the rigid arms (10, 11) via a hook and loop fastening system, the plurality of attachment points forming either the hook or loop portion of the fastener system and a distal part of each of the plurality of connection members (20, 21) forming the other portion of the fastener system. This is further taught by Lindberg in Figure 2. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

In regards to claim 14, Cawley et al. and Lindberg substantially teach the apparatus of claims 1 and 13 (see rejection of claims 1 and 13 above). In column 9, lines 4-8 and 25-30 Cawley et al. teaches at least one of the plurality of connection members (78, 80) having an adjustable length.

In regards to claim 18, Cawley et al. teaches in Figure 6 a sleeve (44) configured to fit snugly about a user's leg (124) proximate the knee (126), a pressure cuff (74) exerting a force on at least a portion of a periphery of the user's patella (126), the pressure cuff (74) having one side attached to the sleeve (44) and upper and lower connection members (78, 80) extending from the one side. Cawley et al. does not teach that the connection members are attachable to locations above and below the patella. However, Lindberg teaches in Figure 2 an analogous device in which the upper connection member (21) is attachable to an opposite side of the sleeve at multiple locations above the knee and that the lower connection member (20) is attachable to an opposite side of the sleeve at multiple locations below the patella, wherein attachment of the upper and lower connection members (21, 20) to selective ones of the multiple locations above and below the patella enable the force exerted by the pressure cuff (7) on the patella to be selectively applied in a plurality of directions. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

In regards to claim 19, Cawley et al. and Lindberg substantially teach the apparatus of claim 18 (see rejection of claim 18 above). In Figure 1 Cawley et al. teaches that the plurality of directions that the pressure cuff (74) applies force on the

patella is a medial-lateral direction, an interior-superior direction and an intermediate direction (the force being applied by connection members 76, 78 and 80).

In regards to claim 23, Cawley et al. and Lindberg substantially teach the apparatus of claim 18 (see rejection of claim 18 above). In column 9, lines 4-8 and 25-30 Cawley et al. teaches that at least one of the upper and lower connection members (78, 80) have an adjustable length.

In regards to claim 24, Cawley et al. and Lindberg substantially teach the apparatus of claims 18 and 23 (see rejection of claims 18 and 23 above). Cawley et al. does not teach that the upper and lower connection members are attachable to the multiple locations via a hook and loop fastener system. However, Lindberg teaches in column 2, lines 43-48 and 64-67 and column 3, lines 1-4 an analogous device with upper and lower connection members (20, 21) attachable to multiple locations on the rigid arms (10, 11) via a hook and loop fastening system, the multiple locations formed by either the hook or loop portion of the fastener system, the upper and lower connection members (20, 21) having a distal part thereof forming the other hook and loop fastener system and wherein each of the multiple locations and the adjustable length are enabled by hook and loop fastener system. This is further taught by Lindberg in Figure 2. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cawley et al. (US patent 6,551,264), in view of Lindberg (US patent 4,941,462) and further in view of Labour et al. (US patent 4,445,505).

In regards to claim 4, Cawley et al. and Lindberg substantially teach the apparatus of claim 1 (see rejection of claim 1 above). Cawley et al. and Lindberg do not teach a buttress. However, Labour et al. teaches in Figures 1 and 2 an analogous device with a buttress (36) adapted for positioning around at least a portion of the periphery of the patella, the buttress (36) positioned between a pressure cuff (80) and the patella. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. as modified by Lindberg with the buttress taught by Labour et al. because this element is known to impart stability to the patella by preventing lateral patella displacement, as Labour et al. teaches in column 3, lines 9 and 10.

3. Claims 11, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cawley et al. (US patent 6,551,264), in view of Lindberg (US patent 4,941,462), in view of Labour et al. (US patent 4,445,505) and further in view of Shields, Jr. et al. (US patent 5,759,167).

In regards to claim 11, Cawley et al., Lindberg and Labour et al. substantially teach the apparatus of claims 1 and 4 (see rejection of claims 1 and 4 above). Cawley et al. and Lindberg do not teach a buttress or a pressure cuff having a generally convex

inner surface. However, Labour et al. teaches in Figures 11 and 12 an analogous device with a buttress (36) having a generally concave outer surface. This is further taught by Labour et al. in column 3, lines 48-50. Labour et al. does not teach a pressure cuff having a generally convex inner surface. However, Shields, Jr. et al. teaches in Figure 4 an analogous device with a pressure cuff (30) having a generally convex inner surface configured to mate with a generally concave outer surface of a buttress. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. as modified by Lindberg with the buttress having a generally concave outer surface taught by Labour et al. because this element is known to increase the barrier formed by the buttress against the side of the patella and prevent lateral displacement and upward drift of the patella, as Labour et al. teaches in column 3, lines 56-59. It would have been further obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. as modified by Lindberg and Labour et al. with the pressure cuff having a generally convex inner surface taught by Shields, Jr. et al. because this element is known to comfortably press sidewardly or edgewise against selected edge zones of the patella, as Shields, Jr. et al. teaches in column 3, lines 51-53.

In regards to claim 12, Cawley et al., Lindberg, Labour et al. and Shields, Jr. et al. substantially teach the apparatus of claims 1, 4 and 11 (see rejection of claims 1, 4 and 11 above). Cawley et al. and Lindberg do not teach a buttress. However, Labour et al. teaches in column 3, lines 22-24 an analogous device with a buttress (36) having

a relatively soft cushioned liner (knitted stocking or pocket) on an inner side thereof adjacent the patella, the liner able to conform to the specific shape of the patella of a particular user. It would have been further obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. as modified by Lindberg with the liner taught by Labour et al. because this element is known to provide a cushioning layer on the buttress to facilitate comfort.

In regards to claim 16, Cawley et al., Lindberg, Labour et al. and Shields, Jr. et al. substantially teach the apparatus of claims 1, 4 and 11 (see rejection of claims 1, 4 and 11 above). In Figure 1 Cawley et al. teaches that the pressure cuff (74) has an arcuate shape, the plurality of connection members (76, 78, 80) being three connections members attached at each end of the arcuate shape and near a midpoint thereof, and one of the three connection members (76) attached between the midpoint and the attachment portion first and hinge (40). Cawley et al. does not teach another two of the three connection members attached between each end of the arcuate shape and respective ones of the first upper and lower rigid arms. However, Lindberg teaches in Figures 2 and 3 an analogous device in which another two (20, 21) of the three connection members are attached between each end of the arcuate (7) shape and respective ones of the first upper and lower rigid arms (20, 21). It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. with the connection points taught by Lindberg because this element is known to stabilize the pressure cuff and avoid the



pressing of the connection members against the crook of the knee, which causes discomfort, as Lindberg teaches in column 3, lines 8-9.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cawley et al. (US patent 6,551,264), in view of Lindberg (US patent 4,941,462) and further in view of Doty et al. (US patent 6,821,261).

In regards to claim 15, Cawley et al. and Lindberg substantially teach the apparatus of claim 1 (see rejection of claim 1 above). Cawley et al. and Lindberg do not teach a connection point having an aperture therein or a connection member having a distal part thereof with a protrusion. However, Doty et al. teaches in Figure 1 an analogous device with at least one of a plurality of connection points having an aperture therein and at least one of the plurality of connection members (26) having a distal part thereof with a protrusion configured to be receive in the aperture to connect thereto. It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. as modified by Lindberg with the connection member and point taught by Doty et al. because this element is known to effectively secure the connection member to the connection point.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cawley et al. (US patent 6,551,264), in view of Lindberg (US patent 4,941,462), in view of Labour et al. (US patent 4,445,505), in view of

Shields, Jr. et al. (US patent 5,759,167) and further in view of DeToro et al. (US patent 7,011,641).

In regards to claim 17, Cawley et al., Lindberg, Labour et al. and Shields, Jr. et al. substantially teach the apparatus of claims 1, 4 and 11 (see rejection of claims 1, 4 and 11 above). Cawley et al. does not teach four connection members attachable to first and second upper and lower rigid arms. However, Lindberg teaches in Figures 1 and 2 connection members (20, 21, 5a, 4b) attached to respective ones of the first and second upper and lower rigid arms (10, 11, 12, 13). Lindberg, Labour et al. and Shields, Jr. et al. do not teach four connection members attached at four generally equally spaced locations on the pressure cuff. However, DeToro et al. teaches in Figures 1 and 2 an analogous device with a plurality of connection members (45B) being four connection members attached at four generally equally spaced locations on the pressure cuff (43), respective ones of the four connection members (45B) at the four locations attached to respective upper and lower rigid arms (14, 15). It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. as modified by Lindberg, Labour et al. and Shields, Jr. et al. with the four connection members taught by DeToro et al. because this element is known to secure the pressure cuff in place.

6. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cawley et al. (US patent 6,551,264), in view of Lindberg (US patent 4,941,462) and further in view of Labour et al. (US patent 4,445,505).

In regards to claim 20, Cawley et al. and Lindberg substantially teach the apparatus of claim 18 (see rejection of claim 18 above). Cawley et al. and Lindberg do not teach a buttress member. However, Labour et al. teaches in Figures 1 and 2 an analogous device with a buttress member (36) surrounding the patella, the buttress member (36) held in position by a sleeve (12), the buttress member (36) positioned intermediate the patella and the pressure cuff (80). It would have been obvious for one having ordinary skill in the art at the time of invention to modify the patella-femoral brace taught by Cawley et al. as modified by Lindberg with the buttress taught by Labour et al. because this element is known to impart stability to the patella by preventing lateral patella displacement, as Labour et al. teaches in column 3, lines 9 and 10.

In regards to claim 21, Cawley et al., Lindberg and Labour et al. substantially teach the apparatus of claims 18 and 20 (see rejection of claims 18 and 20 above). In figure 1 Cawley et al. teaches a first upper rigid arm (16) connected by a first hinge (40) to a first lower rigid arm (18) with the first hinge (40) located proximate the knee and the first upper and lower rigid arms (16, 18) located at the opposite side of the sleeve (44). In column 4, lines 31-36 Cawley et al. teaches that the first upper rigid arm (16) and first lower rigid arm (18) can be made from graphite, which is a rigid material.

In regards to claim 22, Cawley et al., Lindberg and Labour et al. substantially teach the apparatus of claims 18, 20 and 21 (see rejection of claims 18, 20 and 21 above). In Figure 1 Cawley et al. teaches a second upper rigid arm (12) connected by a second hinge (36) to a second lower rigid arm (14) with the first hinge (40) located

proximate the knee and the second upper and lower rigid arms (12, 14) located at on side of the sleeve (44).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **VICTORIA HICKS** whose telephone number is (571)270-7033. The examiner can normally be reached on Monday through Thursday, 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. H./  
Examiner, Art Unit 3772  
10/26/09

/Patricia Bianco/

Supervisory Patent Examiner, Art Unit 3772